



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE DOT IN SEMITIC PALAEOGRAPHY

BY HARTWIG HIRSCHFELD, Jews' University Colleges,
London.

THE dot is the smallest thing seen in any table of Semitic alphabets, yet its absence would render their study well-nigh impossible. Without it half the characters of the Arabic alphabet would be meaningless. Had an ancient Arabic poem been handed down to us by the grammarians without diacritical points, we should have been unable to read it, and even under the most favourable circumstances it would have been full of ambiguities. If the Jewish Masoretes had not provided the Hebrew Bible with vowel points, it would for ever have remained a sealed book. Ample proof of this is furnished by the Semitic inscriptions which contain a large number of words of which we can only give an approximate translation without being certain of its correctness. When reading Arabic, Syriac, and Hebrew texts unprovided with dots and reading signs, we are only able to do so by applying what the grammarians and Masoretes have taught us. The dot, so to speak, carries Semitic philology on its tiny shoulders. It is also of psychological interest, as it shows how the human mind contrived with such simple means to mark the division of words, clauses, periods, and sections; to indicate the different sounds appertaining to characters of uniform shapes; to characterize the variations arising from the grammatical inflexion of verbs and nouns, as well as to assist in the correct reading of groups of letters of identical

appearance. This does not exhaust the functions of the dot. It has been employed singly and collectively, occasionally varying in shape, size, and colour, and has even entered fields outside Semitic linguistics. It is no exaggeration to say that the dot employed in our present writing is a direct descendant of its old Semitic ancestor.

I. THE DOT DISJUNCTIVE.

If we compare the oldest Semitic inscriptions known, viz. those of Oerdekk-Burnu¹ and Ba'al Lebanon on one hand, and the Moabite stone and the inscription of King KLMU on the other, we at once perceive a marked difference between both groups. Whilst the characters of the first have sharp angles, several letters in the two others bend their tails slightly to the left, i.e. towards the next letter. This is obviously an inchoative tendency towards cursive ness, indicating a later date. A common characteristic of these inscriptions is that the words are separated by dots. Only the Ba'al Lebanon bowl, which is of metal, has no dots. The Moabite stone even goes further, and divides sentences by perpendicular lines. From all this we may gather that the authors of the three stone inscriptions just mentioned were so much imbued with the importance of what they wished to convey to posterity that they insisted on absolute clearness of the text, and endeavoured to prevent any ambiguity that might arise from any letter coming in contact with its neighbour. We also find dots between the words in the Siloam inscription as well as in the Aramaic inscriptions of Zenjirli, viz. Hadad, Panammu, and Bar Rekûb. These are of later

¹ See Lidzbarski, *Ephemeris*, III, pp. 192 sqq.

date than the first-named group, belonging to the eighth pre-Christian century. Being royal inscriptions they were provided with dots for the same reason as the others. As to the Siloam inscription, although no sovereign is mentioned in it, it was of national importance, and carved on behalf of some high authority, being part of a scheme of architecture for the public benefit. It is probable that the work of cutting the inscription as well as the whole building project was interrupted before it was finished, because it is not likely that so telling a communication was intended to remain hidden in the bowels of the earth for all ages. Something must have been in contemplation to render the inscription accessible to readers, otherwise there was no purpose in carving it. The two Nērab inscriptions which also belong to the ancient Aramaic group show no dividing dots, but they are of still later date and private character, being devoted to the memory of priests. Dotless likewise are the legends on the Babylonian lion weights, but they are of metal, and the words are separated by space. No dots are found on the Gezer calendar² which, though of great antiquity, only represents the scribbles of a private individual.

The dots which separate the words in the Moabite stone have been used to throw suspicion on the genuineness of the inscription.³ The validity of this suspicion has been disproved by the deliberate opinion of the best authorities of Semitic epigraphy. If justified, the same suspicion would apply to all other inscriptions mentioned before. Are they all falsifications? If so, we must also include the South Arabian inscriptions in which the words are

² See *Pal. Expl. F.*, Jan. 1909, pp. 26 sqq.

³ *ZDMG.*, LIX, pp. 236 and 744.

separated by perpendicular lines as well as some Carian ones which show the same feature.⁴ The lines and dots in the Moabite stone, so far from being a source of doubt, add a fresh argument in favour of its authenticity.

It is worth while examining the whole question of dividing dots in other inscriptions, especially Phoenician. In the home country, Carthage and Marseilles, no dots were used. The bulk of dotted inscriptions belongs to Cyprus. In *CIS.*, I, 46 and 91, a dot is found after every word. In Nos. 11, 92, and the two bilingual ones, viz. 89 and Tamassos,⁵ dots are frequent both in the Phoenician and Cypriote texts. It is, however, to be noted that they are missing in set phrases, such as dates and benedictory conclusions. In some inscriptions there are three or two dots, or only one dot. Others have none. The employment of dots is in the main restricted to the period of the kings Malkiyaton and his son Pumiyaton, i.e. between the years 391 and 354. If we compare these dates with those of the Phoenician home country we find that the former are older. Now although all this does not permit us to deduct any definite rule from it, we are entitled to say that the dots, where found, were not inserted in a haphazard fashion, but with the distinct purpose of serving as guides. It seems that their gradual disappearance went hand in hand with the development in writing towards cursiveness. Between the Ba'al Lebanon and the other Phoenician inscriptions (beginning with that of Byblus) several centuries elapsed during which, in the Phoenician coast towns and other centres of Phoenician culture, the art of reading and writing had probably become so popular that no dividing dots were deemed necessary except where

⁴ See Sayce, *Proc. SBA.*, IX, p. 137.

⁵ Not in *CIS.*

ambiguity was to be prevented. For this reason the Latin text of the Sardinian trilingual inscription (*CIS.*, I, 143) has several dots to indicate the missing letters of abridged words. The intentional omission of dots is peculiarly noticeable in the double text of the first half of the Eshmun'azar inscription, the two parts on the lid of the sarcophagus being merely divided by the space of the width of one letter.⁶ An interesting relic of an earlier habit are the three dots in the Piraeus inscription, *CIS.*, I, 118, and its characters are visibly more archaic than those of the famous 'wreath' inscription of Athens, which is dated 96 B.C. It may seem strange that the Thugga inscription has a dot after every word, although the writing shows a very advanced state. This may, however, be accounted for by the fact that the language is a mixture of Punic and Berber, and a clear division of the words was necessary in order to assist the reader. The very obscure Sardinian inscription, *CIS.*, I, 149,⁷ has many dots, but they are not placed regularly, and also here the dots appear to have been put in as guides for the better reading of this very cursive writing. Whatever reason the engraver had to put the dots in, they cannot be regarded as a sign of lateness.

It is not superfluous, at this juncture, to make a brief diversion into ancient Greek palaeography which presents features akin to our subject. We have seen above that in some Carian inscriptions words are separated by lines. This is also the case with at least one inscription of Thera,⁸ but it was chiefly the dot which travelled to Greek lands

⁶ The second part of this inscription, which is not repeated on the back of the sarcophagus, is probably of later date.

⁷ There are no dots in the Phoenician text of this inscription, but in the Greek text dots indicate missing letters of abridged words.

⁸ See Taylor, *The History of the Alphabet*, II, p. 31.

in the company of the Phoenician alphabet. Double and single dots are frequent in Carian, Lycian, and Cypriote inscriptions. On the islands of the Aegean Sea and in Attica we find three and two dots in perpendicular position, as well as single dots.⁹ The same practice was observed in ancient manuscripts. The retention of these dots can only have been due to the preservation of an earlier custom, as the conversion of the Semitic guttural letters into vowels made the separating dot really unnecessary. There are, indeed, many old inscriptions without any dot, as that of Abu Simbel, several of Thera, and others. There is no need to go into this subject exhaustively, especially as this would require very far-going investigations, which must be left to specialists. This much can, however, be inferred, that the gradual disappearance of the dots in Greek texts furnishes an interesting parallel to the same phenomenon in Semitic palaeography.

The most extensive use of the dot for the purpose of punctuation is found in Syriac manuscripts, either singly to mark the end of a clause, or in groups to close a sentence, paragraph, or section. This practice arose in the sixth century, and developed later into a complicated system, a full survey of which is given by Duval¹⁰ who, on the authority of Barhebraeus, presents no less than forty-six different groups. That this was not, however, the beginning of the use of the dot in Syriac we shall see presently.

In Ethiopic, words are separated from each other by two dots placed one above the other. This may be accounted for by two reasons—*first*, their being a relic

⁹ See Roehl, *Inscriptiones graecae antiquissimae* (1882), 2, 31, &c.; *CIA.*, I, 8, 34, 44, &c.

¹⁰ *Traité de grammaire syriaque*, pp. 146 sqq.

of the perpendicular line of the South Arabian inscriptions as well as in Ethiopic inscriptions of the older style, notably those discovered by Ruepell;¹¹ *second* and chiefly because the nature of Ethiopic characters with their hooks, strokes, and ringlets affixed on either side, made it necessary to prevent misunderstandings. This view may be supported by the fact that prefixes are simply added without intervening dots. Similar reasons are probably responsible for the dots between the words in Samaritan writing, which also abounds in small strokes and points striking out from the body of various consonants. In Nabataean, Palmyrene, Mandaitic, and Arabic texts this dot is unknown; on the contrary, ligatures are common. In Nabataean and Sinaitic inscriptions we find letters of words often run into the next one, causing a certain amount of difficulty to the decipherer. This, on the other hand, leads to the conclusion that the absence of the separating dot, together with cursive writing, was the result of a widely spread faculty of reading and writing, and that both engravers and persons on whose behalf inscriptions were cut had no fear that their legends would not be read correctly.

Hebrew differs in this respect entirely. When the square characters had been finally developed, any artificial means of disconnecting words from each other were unnecessary, because the rabbinical law ordained that the separation should be absolute and clearly visible. This was done in order to prevent any possibility of ligatures. The practice became so strict that it was even adopted for texts of private nature. In the two oldest Hebrew inscriptions in square characters, viz. those of the Benē Hēzir and Kafr Bir‘im, neither ligatures nor dividing dots

¹¹ *Reisen in Abyssinien*, vol. II (Atlas).

are to be found. The wisdom of this rule is seen in Hebrew manuscripts of the Middle Ages, in which the cursive writing characteristic of each country with its many ligatures causes considerable difficulty, although it helps in determining the home and often the age of the manuscript in question. In the scrolls of the Pentateuch used for reading in synagogues no dot or stroke is permitted. The words are separated by space or vacant half lines. The division of the verses by double dots was introduced later when biblical books were copied in volume form. The oldest specimen known at present is the famous Codex Petropolitanus of the latter Prophets dated 916.¹² This practice was undoubtedly borrowed from Syriac manuscripts. As to Arabic, gilt dots mark the end of verses in many manuscript copies of the *Qorān*, and dots and stars frequently appear in the printed editions.

II. THE DOT DIACRITICAL.

The diacritical dot made its first appearance above the *rēsh* in Palmyrene inscriptions in order to distinguish it from the *dālēth*. It is, however, a notable fact that this dot is not found in the older stones, and did not come into use till the end of the second post-Christian century, i. e. about two hundred years after the first inscriptions had been cut. In Nabataean inscriptions this dot does not exist at all. As to the origin of the Palmyrene dot scarcely anything can be said, except that it was probably the outcome of necessity and actual misreading, and born in the brain of some resourceful person who found it advisable to help the reader in the distinction of these two letters. The absence of dots in the preamble of the

¹² Dots before *silluq*, see Kahle, *ZDMG.*, LV, p. 194 rem.

Palmyrene tariff, which dates from the year 137, must have caused embarrassment to unskilled readers, as, e.g. in the first line, *dālēth* and *rēsh* stand in close proximity looking one exactly like the other. Thus in contradistinction to the dot dividing words, in Palmyrene it assists in determining approximately the *terminus a quo* of undated inscriptions. Its employment did not, however, become general at once, and there are many inscriptions of the third century in which it is only sporadically given. From Palmyra it wandered to Syria, and is found in manuscripts as early as the beginning of the fifth century. It is absent, however, from Syriac inscriptions of the same period.¹³ In manuscripts it is also used to mark the *dālēh*, being placed either inside or beneath the letter. A double dot put horizontally above a letter serves to mark the plural. Even the device of using these two dots above the *rēsh* for the double purpose of marking the letter and indicating the plural occurs in the same old manuscript. To whom this contrivance is due is not known, but it was probably the outcome of the exigencies of teaching the young. To the same cause we may ascribe the dot above *š* whenever it is equivalent to Greek π .

In Hebrew only one diacritical point is used, viz. that which distinguishes *sīn* from *shīn*. The period when this was introduced is not known, but it could not have been very early. The dot on *sīn* was not from the outset placed on the left side, as in the Cod. Petropolit. it has its place over the central head of the letter. In the Moabite stone no difference is made, but it must not be overlooked that we are not well informed as to any dis-

¹³ The inscription published in *ZDMG.*, XXXVI, p. 159, bears the date 494.

tinctions made by the various Semitic nations in the pronunciation of the sibilants, especially as *sāmekh* also occurs several times in the same inscription. The same applies to ancient Aramaic and Phoenician inscriptions. The dot over *sīn* was in all probability originally a small **ד**¹⁴ placed above **ו** in the middle, which **ד** subsequently shrank to a mere dot. *Shīn* with the dot on the right was evidently an afterthought, and both were placed on the right and on the left respectively for the sake of symmetry.

The largest use of the dot diacritical is made in Arabic of Moslim times. In South Arabian inscriptions no dot is found, neither do Arabic words in Nabataean ones show any distinguishing mark.¹⁵ Arabic palaeography is not as yet very far advanced in spite of the rich material extant, and much uncertainty still prevails. The Arabic text of the trilingual inscription of Zebed¹⁶ seems to have been added later than the Syriac and Greek legends, since the beginning formula *bismillāh*, particularly in its abridged form, could scarcely have been used prior to Islām. What might be taken for a diacritical point over **س** in the second line of the Harrān inscription seems to be a small hole in the stone.¹⁷ At any rate the date can scarcely be 463.¹⁸ Thus neither of these inscriptions shows any more trace

¹⁴ See also Kable, *Die Masoreten des Ostens*, p. 119. Nestle in *Transactions of the 9th Congress of Orientalists*, Semit. section 1, p. 63; and 11th Congress, p. 11. The latter is wrong in assuming that the dot on **ו** was always placed on the left side, but is right in demanding that **ו** should have its place in the dictionaries before **ו**.

¹⁵ c. g. **س** = **س**.

¹⁶ See *ZDMG.*, XXXV, p. 530.

¹⁷ See Schröder in *ZDMG.*, XXXVII, p. 530 rem.

¹⁸ Praetorius's doubts as to the correctness of this date (*ZDMG.*, XXXV, p. 749) are perfectly justified. If, on the basis of **المومن**, we assume the era of the Martyrs, we should gain the year 847. Several letters bear close resemblance to the Zebed inscription.

of a diacritical point than the inscription of Basra which dates from the *twelfth* century.¹⁹ On the other hand we find dots on gold dinārs dating from A. H. 82 (701)²⁰ and the next following years. A peculiarity of these coins is that double dots are placed one above the other. In its earlier stages the system was far from being fixed. This is confirmed by a document on papyrus dated A. H. 90 (709),²¹ in which double dots run in a slanting direction, but on the whole dots are employed very sparingly. Also in the well-known Arabic passport dated A. H. 133 (750),²² which was granted to a Copt, all diacritical points are missing. In a genealogical work written in Cufic characters (MS. Berlin, fol. N.R. 37 a), dating from the *eighth* century, stacks of three small slanting strokes over ڻ stand for dots. In other manuscripts (e. g. Brit. Mus. Or. 1270–3326) the three dots over ڻ are written in a row.

As is well known, in the Maghribine style of writing, which is a direct descendant from the Cufic writing, ڻ has its dot below ٻ, and ڻ only one dot above ڻ. In Cufic manuscripts of the *Qorān*, coloured or gold dots stand occasionally for *hamza*, *jazm*, and *tanwin*,²³ but chiefly for vowels as we shall see later on. In several of these manuscripts small black strokes take the place of diacritical points, but they seem to have been added later.²⁴ As these specimens are chiefly known from fragments it is impossible to ascertain their exact dates, but the practice

¹⁹ See *ZDMG.*, XXXI, p. 135; see also van Berchem, *ClAr. Mém. miss. arch.* 1894.

²⁰ See St. L. Poole, *The Coins of the Eastern Khaleefahs*, I, p. 1 sqq.

²¹ See Becker, *Papyrus Schott-Reinhardt*.

²² *ZDMG.*, XXXIV, pp. 685 sqq.

²³ See also Nöldeke, *Geschichte des Qorān*, pp. 326 sqq.

²⁴ See Möller, *Palaeographische Beiträge aus den herzoglichen Sammlungen in Gotha*, tables IV to VI, XII.

of using coloured dots seems to have lasted some time, developing a great variety. In one specimen the diacritical points appear as horizontal green lines.²⁵

It is beyond doubt that the diacritical points in Arabic took their origin from Syriac. This, however, does not explain everything, especially the three dots over ث and ش . As for the latter, it may be suggested with some show of reason that the three dots which, as we have seen, stand in a straight line, represent the three heads of the w in Nabataean and Palmyrene, or Hebrew square writing. We have also seen that the dot over ش was probably anterior to that over ش . As Arabic ش , as a rule, corresponds to Hebrew ש , and *vice versa*, we might further suggest that ش had originally but one dot. In Cufic Qurāns a small slanting stroke in black is placed over each head,²⁶ whilst ث is marked by a group of three black parallel strokes. The three dots in the ordinary Naskhi are probably the result of analogy, on account of the near relation of these two consonants. The hard ث has therefore only two dots. The dots below ص were most probably derived from Syriac.

In every newly introduced system it is the first steps which are uncertain and tentative. As soon as the initial stages are overcome, spontaneity has a fair amount of free play. In the Arabic alphabet many groups of consonants of quite heterogeneous character assumed uniform shapes by force of circumstances which—by the way—can be easily accounted for. For the ordinary reader, then, the necessity arose of obviating the difficulty created by this uniformity. How many were there who could read a Cufic Qurān fluently? The dots over خ , ذ , ظ , ض , ث , and ص ,

²⁵ *Ibid.*, table VIII, 3.

²⁶ *Ibid.*, tables VI and VIII.

were probably the result of deliberate contrivance by early copyists and school teachers. In secular works the dots were frequently neglected, perhaps with the intention of putting them in afterwards. They were not even missed, as nearly all these books were written for educated readers.²⁷ Authors, therefore, saw themselves frequently compelled, when quoting names of persons and places, to give the full spelling, including the numbers and positions of dots, to prevent misreading. There exists also a special terminology for letters with and without dots. *Sylvestre de Sacy*²⁸ is of opinion that the use of diacritical points is posterior to that of vowel signs. In Cufic fragments the opposite seems to be the case, but of this anon. A calculated extension of the dot system appears in a large number of non-Semitic languages which have adopted the Arabic alphabet for such modified sounds as do not exist in Arabic. The close relationship prevailing between the diacritical points of Arabic and Syriac is best shown in Kārshūni, i. e. Arabic in Syriac characters, but no uniform system prevails. Whilst many manuscripts simply use the Nestorian system, a printed prayer-book in my possession follows a more elaborate plan.²⁹ Arabic in Hebrew square characters, of which there exists a vast literature, has also introduced several modifications of a simple character.³⁰

²⁷ Especially letters; see also *Arabische Urkunden*, &c., ed. Abel, Berlin, 1900. Even in a letter dated A. H. 300 dots are very sparsely used.

²⁸ *Grammaire arabe*, 2^{ème} éd., I, pp. 11 sqq.

²⁹ The title page is missing, but the appearance of the book suggests the seventeenth century. The following modifications are in use: $\text{ܩ} = \text{ܩ}$; $\text{ܓ} = \text{ܓ}$; $\text{ܗ} = \text{ܗ}$; $\text{܂} = \text{܂}$; $\text{܃} = \text{܃}$; see also the specimen in Land, *Anecdota Syriaca*, I, p. 90 and table XVIII, and the manuscripts of the British Museum Egerton 703; Or. 5911, &c.

³⁰ With dot either above or below $\text{܂} = \text{܂}$; $\text{܃} = \text{܃}$; $\text{܄} = \text{܄}$ with or without dot = ܂ ; $\text{܃} = \text{܃}$; $\text{܄} = \text{܄}$.

III. THE DOT VOCALIC.

In early Aramaic inscriptions vowels, long or short, are found graphically expressed by means of the vowel letters *ن*, *ي*, and *ء*. As this method was the exception rather than the rule, it afforded little help for reading written documents. Syriac authors and copyists, therefore, felt the necessity of obviating any possible ambiguity arising out of the equal spelling of words of different reading and meaning. An ingenious way out of the difficulty was found as early as the fifth century by placing a dot above a consonant to indicate the vowels *α* and *o*; and below for *e*, *i*, and *u*. Whence this idea was derived is not known, but possibly the vowel letters were in the first stage written bodily above and below, and were subsequently reduced to dots. For quite a number of words of one or two syllables this was sufficient, but was inadequate for longer words. Actual difficulties seem to have arisen which called for adjustment. Nestorians not only retained the dot arrangement, but enlarged it to a complete system comprising all vowels, but Jacobites replaced the latter by five vowel signs adapted from the five Greek vowels. Henceforth both systems lived side by side. For details see the Syriac grammar books.

A peculiarly mixed system was evolved in Hebrew, mixed in a double sense. There are in the first instance the two varieties of the Babylonian system in which real vowel signs are intermixed with dot vowels. Exactly the same is the case with the Tiberian systems. There exists another affinity between both systems, but I am not aware if it has been pointed out before or not; it seems to point to a common origin of both. In either system *patah* and *qāmes* are expressed by real vowel signs, but the other

vowels by dots. This means that for short *a* and long *a* the ancient Syriac dot above was not considered suitable. As to the origin of these vowel signs in both systems opinions vary, but this makes no difference, since whether they were developed from the Jacobite *p'tahā*, or from the Arabic *fathā*, they can both be traced back to the *n* of old. It cannot be denied that Arabic influence is manifest in the names of these vowels, although their invention may be posterior to that of the vowel signs themselves. However this may be, dots or groups of dots are used in both systems for *hireq*, *sērē*, and toneless *segħol*. As to the relation of these vowels to the dot below in the first Syriac system, it is too obvious to need any further demonstration. The double dot in *sērē* is probably a copy of the Nestorian sign (˘), but placed horizontally. More difficult is it to account for the third dot in the Tiberian *segħol*. In the superlinear system accentuated *segħol* is not distinguished from *pataħ*, which is probably due to Arabic influence. The three-dotted *segħol* seems to be nothing but *sērē* with a dot added, primarily for the benefit of school children. As to the three slanting dots of *qibbūs*, I consider them older than the *shūreq*. We see in it again the Syriac dot below with the addition of two more dots, whilst the slanting direction was dictated by the necessity of keeping them clear of the other vowels and *shevā*. The *wāw* has no room for three slanting dots, so when used as *mater lectionis* it has to be satisfied with one dot.

The Tiberian system employs two dots placed one above the other to express vowellessness. The late Prof. Graetz seems to be right in alleging that in the tenth century no difference was made between the two kinds of *shevā*. The precision with which later grammarians

distinguished between both seems to have been unknown to the earlier ones. Even medieval Jewish grammarians did not recognize the *shevā medium*. This produced an uncertainty which caused some laxity in the treatment of the syllable, and which was probably the reason why Hebrew poets of the Middle Ages took liberties by opening closed syllables and closing open ones. This ambiguity found a fitting expression in the use of the same sign for both kinds of syllables as well as for the grace note at the beginning of words. Its origin was probably the Syriac sign for the short ē (܍), but in Hebrew the two dots were placed vertically to prevent them being taken for *sérē*. At the end of the word it is omitted in the superlinear system, whilst in the Tiberian style it is retained in ܍, but is frequently absent in Qaraite manuscripts. In the Babylonian system it has the shape of a horizontal stroke, but in connexion with the two horizontal dots of *sérē* it stands for *shevā compositum*.

It does not seem sufficiently realized that a complete system of dot vowels also existed in Arabic, but was confined to Cufic Qorāns in the following manner. Red dots above stand for *fathā* and *damma*, while the dot below means *kesra*. This again is quite in accordance with the first Syriac system, and was without doubt borrowed from it. New, however, in this respect are the two red or green dots placed one above the other to stand for *tanwīn* with *damma* or *kesra*, whilst placed horizontally they are meant for *tanwīn* with *fathā*, and occasionally for *kesra*. In many instances there appears only one dot, but it should be understood that there are many fragments without any dots. In order to distinguish these dots from the diacritical points the latter, as mentioned before, appear

frequently as slanting strokes in black or green. These strokes are often not larger than dots. The size of the coloured dots, combined with the narrowness of the lines, make it often doubtful to which word or letter the dots belong. Questions of space occasionally caused the dots to be placed horizontally instead of vertically. In some few cases *jazm* is rendered by a complete green circle below or above the letter.³¹

It is now abundantly clear that there exists an historical connexion between all these dot systems which, from small beginnings, expanded into manifold ramifications. The question is now whether it also embraced the Ethiopic alphabet. No dots are visible in the old inscriptions, as far as we know them, or in manuscripts of later date. The Ethiopic alphabet was originally purely consonantic, as in the other Semitic languages, but instead of developing detached vowel signs, the alphabet assumed a syllabic character, vowels being marked by small strokes, hooks, and small rings attached to the bodies of the consonants.³² Now the late Prof. Dillmann,³³ whilst rejecting De Sacy's opinion that these vowel signs were modelled on Greek vowels, flatly denied any foreign influence, especially on the part of the Syrian 'new' system, and styled their invention a 'deed of the Abyssinian people'. He was also of opinion that the small square hooks and rings in which many of these vowel signs end were but ornamental, and that the connecting strokes which often appear as a mere lengthening of the letter constituted the main element of the vowel.

³¹ See Möller, *l.c.*, tables III and VII.

³² See Taylor, *l.c.*, I, pp. 338 and 349.

³³ *Grammatik der aethiopischen Sprache*, p. 20.

Now this seems to me to be contrary to all we know about the rule of developments. As is well known the Ethiopic alphabet is indirectly an offspring of ancient Semitic writing. The Syriac system of dots had long been in existence when Ethiopic began to be written, and since both Syrians and Ethiopians were Christians, a literary intercourse between both, at least in matters theological, is certain.³⁴ It is also probable that the Hebrew vowel system was in existence when the Ethiopians began to produce a written literature. It is likewise an acknowledged fact that in the treatment of certain consonants, notably gutturals, as well as in the vocabulary, Ethiopic has much in common with Hebrew. It is therefore admissible that the vowel systems prevailing in Syriac and Hebrew were known to early Ethiopic writers, and used by them as models. Several of the Ethiopic vowel signs betray their origin unmistakably. The dot below standing for *i* in Syriac, Hebrew, and Cufic *Qorāns* appears in twenty-four out of the twenty-six Ethiopic consonants. Only in two (כ and ל) it turns upwards, but is kept at the bottom. In this manner just the little cornery ends, which Dillmann considered ornamental, represent the vowel, whilst the small strokes only serve as bridges due to the rapid course of the pen. The Ethiopic consonants are little suited to be equipped with detached dots and vowel signs. They are too curvilinear and bulky to harmonize with small dots above and below them, and it seems natural that the latter were attached to the body of the consonant for their own good. Some of the details are, of course, a mere matter of speculation, but this is not without a basis. The

³⁴ See Fell, 'Die Christenverfolgung in Südarabien', *ZDMG.*, XXXV, pp. 1 sqq.

following are a few suggestions. The unadorned letter carries plain α with it. This possibly dates from a time when *alf* (**h**) headed the alphabet with α as its natural vowel.³⁵ As to long $\bar{\alpha}$ it is expressed in the majority of letters by the lengthening of the right foot. This looks like an absorbed *qāmes*, but I lay stress on the fact that with **¶** (*wāw*) this lengthening runs straight down in the middle of the letter. In six letters the prolongation is bent (at right angles) to the left, simply because more lengthening would have meant nothing. The sign for \bar{u} in the middle of the letter seems to have its origin in *shūreq*. It is written on the right side, instead of on the left, because Ethiopic is written from left to right. Long \bar{o} is expressed in ten letters by a little ring on the right-hand top corner, corresponding to *ḥolem* on the left top corner in Hebrew. Now we must consider that \bar{o} in Ethiopic is not an original vowel, but, as Dillmann has shown, is either a modified $\bar{\alpha}$ or \bar{u} , or the diphthong $\alpha+u$. In fourteen letters \bar{o} is expressed by the lengthening of the left foot, but in one letter, viz. **¶** (*mō*), this runs perpendicularly down near the middle. We have seen above that exactly the same is the case with **¶**. The \bar{o} in **¶** might therefore be tantamount to the unadorned letter carrying plain α plus the *wāw* attached to the bottom. It was attached to the left loop, because the protuberance of the right loop was preserved for long $\bar{\alpha}$. That no fixed system was employed originally we see from the alphabet of the Rueppell inscriptions,³⁶ the characters of which hold about the middle between South Arabian and Ethiopic writing.

³⁵ In the Rueppell inscriptions *alf* strongly resembles the ancient Canaanite *aleph*.

³⁶ *l. c.*; see also Dillmann, *l. c.*, plate A.

In these inscriptions *wave* with \ddot{o} has two forms, one with a small stroke coming out near the bottom on the left-hand side, and a small circle on the right-hand top corner. *Kaf* (**h**) has in one case the left foot lengthened, and in another a small circle at the bottom on the right side, which shows that convenience was an important factor in the final arrangement of these vowel signs. As to the small circle for \bar{e} on the right bottom corner, it is either an adoption from the Syriac two dots, or of the Hebrew *sere*, but written in one movement of the pen. Regarding the sign for vowellessness ($\ddot{\varepsilon}$) we may be permitted to refer to the Nestorian double dots and the Hebrew *shevā*, which as one solitary dot was attached to any convenient spot of the consonant where it does not interfere with any other vowel sign. Even if everything cannot be cleared up on this question, there can be little doubt that an independent production of the Ethiopic vowel system should be denied, and that it falls into line with the systems of the sister languages.

IV. THE DOT GRAMMATICAL.

The galaxy of dots discussed in the preceding pages is still considerably augmented, and even surpassed in importance, by a new series with grammatical functions. We begin again with Syriac, which was probably the first of the Semitic dialects to mark the hard pronunciation of the consonants with double values by placing a dot, generally of somewhat larger size than the diacritical dot, above the letter. The soft pronunciation was indicated by a dot below. In some manuscripts, especially in texts with Nestorian vowel signs, these dots are written in red ink in order to avoid confusion. The two dots denoting

the plural have been mentioned before. Another dot placed is the so-termed *mephaggedānā*, which serves to distinguish the *third* person singular *feminine* of the past tense from the *second* person singular *masculine*, and the *first* person. Also the construct state of nominal forms of feminine gender is often so marked. The difficulty of avoiding confusion is obvious. Fortunately in many manuscripts the employment of these dots is restricted to cases of ambiguity. The Nestorians neglected the last-named dot entirely, and distinguished the third person fem. sing. of the past tense by two dots standing for short ē (—). Finally, there remains to be mentioned the dot over *ו* (*mappiq*), which denotes the suffix *fem. sing.*

This same dot serves in Hebrew as a sign that quiescent letters are in certain instances to be pronounced as full consonants. Its place is not, however, at the top of the letter, as is found in some manuscripts,³⁷ but within its body, with the exception of *ו*, which has no room for a dot. It is probable that this practice was likewise modelled on Syriac precedence, and that the removal of the dot inside the body of the letter was in order to prevent its being mistaken for *holem*. Now there are two other classes of dots which are responsible in Hebrew for a host of rules which are not without ambiguities and differences of opinion. Although these two classes are totally different in character, they both share the name of *dāgesh*. One of these classes is again divided into a number of subdivisions, unknown to early grammarians, but classified in our grammar books by a list of Latin names which in reality are mere labels and explain nothing. The general description of this *dāgesh* as ‘euphonic’ is

³⁷ See Kahle, *Die Masoreten des Ostens*, p. 163.

quite inadequate, and has only been chosen for want of a better name. There is one consonant which by the orthodox rule of grammar is declared incapable of harbouring this euphonic *dāgesh forte*, viz. ר. Yet there are about twenty instances in the Old Testament in which this letter is marked by a dot inside,³⁸ and they form notable exceptions to the many hundreds of instances in which this letter does not take the dot, and other means are resorted to to conform to the rule. What we must attempt to find a reason for is the exemption of this letter from restrictions. If we examine all the cases of ר we can divide them into *three* groups: *first*, when preceded by a short, toneless vowel with sharpened syllable, e.g. בְּרִית (Ezek. 16. 4), מִתְּשִׁיחַ (ibid.), מִתְּהִלָּה (Prov. 14. 10); *second*, with so-called *dāgesh dirimens*, e.g. חַרְפּוֹתָה (Judges 20. 43); *third*, after *dāgesh forte conjunctivum*, e.g. מְשֻׁנְהָרִיךְ (Prov. 15. 1). I am here chiefly concerned with the first group, because the other two are somewhat doubtful, and not even recognized by some important authorities on Māsorāh (Norzi). Now I venture to suggest that in the instances of the first group the dot is *ab ovo* no *dāgesh* at all, but was originally a small ר written inside the other to show that the toneless first syllable (רָ) was short and read with a short vowel which was to be prevented from being spoken long. The idea was to allow the ר its full consonantic force. Arabic, as is well known, insists upon doubling the ر after the definite article.

If the real nature of the dot in the ר, as suggested above, be conceded, that in the other groups can, then, easily be explained by the law of analogy. There is ample evidence in Semitic languages to show that reading

³⁸ See Gesenius, *Hebrew Grammar*, § 22s.

In two introductory chapters are discussed the preliminary questions of definitions, sources, and classifications of religions, and the general characteristics of primitive religions. Professor Hopkins rejects both naturism and animism as the *prius* of religion, as the abstraction of spirit from body is beyond the grasp of primitive man. 'The object to which his grave mumblings of hope and fear are directed is neither god nor devil, nor a power of any sort as a person; it is rather the potency called *mana* or *orenda*' (p. 18). This potency the primitive man conceives not as one universal power diffused through the universe, but as inherent separately in everything animate and inanimate. To this attitude towards a spiritual world he gives expression through fear, entreaty, by means of dance and spell and memorial stones, which are the 'prototypes of churches'.

The study of the religions of Africa, of the Ainu, Polynesians and America give occasion for the discussion of fetishism, shamanism, taboo, mana and totemism, in all of which the author finds elements of permanent value which have been assimilated by the higher religions. Thus summing up his estimates of these basic elements of primitive religions he says in the Preface: 'Taboo invested with spiritual power the moral command, insured the home, and made for civilization; fetishism confirmed the thought that man depends on a spiritual something, gave faith in a power that helped, and made the power the judge of right and wrong; totemism linked man in communion with the divine and in conjunction with seasonal nature worship founded ritual in the recurrent form necessary to religious stability.' Then follows in succession, Celtic Religion; Religion of the Slavic Peoples; Religion of the Teutons; Religions of India. From the Vedas to Buddha; Buddhism; Hindu Sectarian Religions; Religions of China, Pre-Confucian Religion; Confucius, Tao-tse, Taoism; Religions of Japan, Shintoism and Buddhism; Babylonian and Assyrian Religion; Zoroastrianism; the Religion of Israel; the Religion of Mohammed; Greek Religion; the Religion of the Romans, and the Religion of Christ and Christianity. As has already been noted, the author has a good word for all the

served the purpose to perfection. There is nothing objectionable in the suggestion that it subsequently shrank to a mere dot. It is, then, only one step further to apply the same theory to ב with *dāgesh forte affectuosum*, and the other liquids marked with the *d. f. firmativum*. In reality all these are not instances of doubling the letter, but of protection and preservation. The practice of using a reduced specimen of the same consonant once introduced, it could be applied to other letters, and there is really no reason why even the *dāgesh forte necessarium*, as well as the *dāgesh lene*, should not owe their origin to exactly the same procedure. Dr. Kahle styles the *dāgesh* a degeneration from ב .⁴¹ Now although he only speaks of superlinear texts, we are entitled to extend the theory to the Tiberian system, whence it found its way to the eastern codices. It is true that it exists in the Cod. Petropolitanus, but, on the other hand, there are many Qaraite manuscripts provided with the Tiberian vowel system, but not showing a single *dāgesh* of either class. Some of these manuscripts are of comparatively recent date. It is difficult to find a reason for this laxity, if we are entitled to call it so. As these manuscripts here alluded to contain commentaries on biblical books by Yepheth b. Ali,⁴² it seems probable that they represent several generations of copies faithfully following the style of the archetype. Since Yepheth was a very prolific writer, we may infer that at the turn of the eleventh century the use of the *dāgesh* was still in an unsettled condition. This is all the more strange as Yepheth lived in Jerusalem, and was probably more familiar with the Tiberian system than with the superlinear one.⁴³

⁴¹ *I. c.*, p. 168.

⁴² See my Yepheth b. Ali's Arabic commentary on Nahum, p. 12.

⁴³ The peculiar employment of dots in the specimens of shorthand

The question now arises why of all Semitic languages Hebrew alone developed so complicated a *dāgēsh* system. This may be accounted for by two reasons; one grammatical, taking into consideration the peculiar nature of the Hebrew syllable; the other, ritual, it having proved incumbent to train suitable persons in the reading of the Law during divine worship with minute exactness. For Syriac and Ethiopic this necessity did not exist. As to the latter, I have to record the exceptional phenomenon found in the manuscript of an Ethiopic-Falāsi glossary.⁴⁴ The author of this glossary seems to have been a Falāsi who had some knowledge of Hebrew grammar, and perceived the appropriateness of the *dāgēsh forte* to mark double dots in both languages. He placed his dots, however, above the letters, probably for the reason that the Ethiopic alphabet is not suitable for the insertion of dots without causing great inconvenience.

In fifteen passages of the Hebrew Bible single letters as well as whole words are marked by dots which have none of the functions discussed in the preceding pages. These dots were placed there by the Masoretes for purposes of textual criticism. As these matters have been dealt with in detail in special treatises,⁴⁵ there is no need to dwell on them at any length. Finally, there remains to be mentioned that in ancient tomb-stones,⁴⁶ manuscripts, and printed books, dots are placed on top of letters to indicate abridged words, initials, and quotations from the Bible.

writing (twelfth century), published by Kahle in *ZAW*, XXI, pp. 273 sqq., does not, strictly speaking, touch our subject.

⁴⁴ Published in *JRAS.*, 1919-1920.

⁴⁵ See Blau, *Masoretische Untersuchungen*, pp. 62 sqq.

⁴⁶ See *Palaeograph. Soc.*, plate 29, dated 1718.